Pipeline Group Factual Report

ATTACHMENT 18

IMP-SEC2-01, subsection 2.2

Carmichael, Mississippi
DCA 08 MP 001

1.0 PURPOSE:

The purpose of this procedure is to determine the method(s) required to assess the integrity of the line pipe.

2.0 PROCEDURE:

2.1 DATA GATHERING

Information considered for the integrity assessment method selection may include the following.

2.1.1 Line ID(s) with beginning and ending station if available

2.1.2 Coating type of the segment.

2.1.3 Coating Condition for the segment. Use the following descriptions for coating condition:

2.1.3.1 Uncoated – Bare pipe with no protective coating.

2.1.3.2 Poor – Partial or full disbondment with or without coating holidays/anomalies.

2.1.3.3 Good - Fully bonded coating system with no or few holidays/anomalies.

2.1.4 Quality of cathodic protection (CP) for each segment: Use the following descriptions for CP quality

2.1.4.1 Adequate – This section of line currently meets the minimum requirements set forth by the National Association of Corrosion Engineers Recommended Practice RP-0169 and adopted by reference in DOT 49 CFR, Part 195.571.

2.1.4.2 Inadequate – This section of line does not currently meet at least one of the minimum requirements set forth by the National Association of Corrosion Engineers Recommended Practice RP-0169 and adopted by reference in DOT 49 CFR, Part 195.571.

2.1.5 Year of original construction.

2.1.6 Does the normal operating temperature of the segment exceed 100°F?

2.1.7 The pipe diameter, yield strength, wall thickness and seam type for the segment.

2.1.8 The number of known in-service seam ruptures and hydrostatic test related seam ruptures.

2.1.9 Has this segment been tested for cracks? If yes, have crack indications been found on this line segment?

2.1.10 The year and pressure of most recent hydrostatic test for the line segment, if applicable.

2.2 EVALUATE FOR THREAT SUSCEPTIBILITY

2.2.1 The Pipeline Integrity Engineer shall evaluate the segment to identify its susceptibility to Longitudinal Seam Failure

2.2.1.1 The method used to determine each line's susceptibility to Seam failure is described in the paper by John F. Kiefner titled "Dealing With Low-Frequency-Welded ERW Pipe and Flash-Welded Pipe With Respect To HCA-Related Integrity Assessment", paper No. ETCE2002/PIPE-29029.

2.2.1.2 Data from ASME publication, "The History of Line Pipe Manufacturing in North America" may be used to determine if pre-1979 ERW line pipe was manufactured with a high frequency mill process.

2.2.1.3 Failures of longitudinal weld seams during the original construction hydrostatic test are classified as manufacturing defects and are not fatigue related failures.

2.2.2 The Pipeline Integrity Engineer shall evaluate the segment to identify its susceptibility to cracking mechanisms such as Stress Corrosion Cracking (SCC)

2.2.2.1 The method used to determine each line's susceptibility to high pH SCC is described in ASME B31.8S Appendix A3.

2.2.2.2 Near neutral pH SCC susceptibility evaluation of line segments may consider the following:

2.2.2.2.1 Known history of SCC

2.2.2.2.2 Normal operating stress greater than 60% SMYS

2.2.2.2.3 Coating system classification of "Poor" per 2.1.3 of this document and shields cathodic protection

2.2.3 The Pipeline Integrity Engineer shall evaluate the segment to identify its susceptibility to Corrosion

2.2.4 The Pipeline Integrity Engineer shall evaluate the segment to identify its susceptibility to Third Party Damage

2.3 ASSESMENT METHOD SELECTION

2.3.1 The Baseline Assessment Plan tool selection shall comply with 49CFR195.452(c).

2.3.2 The Pipeline Integrity Engineer and the Project Manager shall identify

and select appropriate integrity assessment method or combination of methods to address the threats identified for the pipeline segment. The assessment method(s) selection may consider:

2.3.2.1 The data collected in section 2.1 of this procedure

2.3.2.2 The susceptibility to the threats identified in section 2.2 of this procedure.

2.3.2.3 Effectiveness of the assessment method(s)

2.3.2.4 Availability of internal inspection tools or other tools capable of detecting metal loss and deformation anomalies.

2.3.2.5 Piggability of the line

2.3.2.5.1 Bend radius

2.3.2.5.2 Assessment segment length

2.3.2.5.3 Trap configuration

2.3.2.5.4 Product

2.3.2.6 Cost effectiveness of the assessment method

2.3.2.7 Schedule for completion of the integrity assessment

2.3.2.8 Need for ID/OD discriminator

2.3.2.9 Re-inspection recommendations

2.3.2.10 The MOP of the segment, as required.

3.0 DOCUMENTATION

3.1 The integrity assessment method(s) selected for the baseline assessment shall be documented on the Baseline Assessment Plan.

3.2 The current integrity assessment method determination documentation shall be kept on file until it is replaced by the next integrity assessment method determination.

4.0 REFERENCES

4.1 49 CFR Part 195

4.2 ASME B31.8S

4.3 "Dealing With Low-Frequency-Welded ERW Pipe and Flash-Welded Pipe With Respect To HCA-Related Integrity Assessment", paper No. ETCE2002/PIPE-29029

4.4 ASME publication, "The History of Line Pipe Manufacturing in North America"

➢➢➢End of Procedure≺≺≺

Change Log

Date	Rev. #	Change Location	Brief Description of Change
8/22/05	1	Title Block	Replaced Paul Klein with Joe Cheek as owner.
8/22/05	1	Title Block	Added "EPOLP Pipeline Integrity Management Program".
8/22/05	1	2.3.2	Modifications to PI position titles performed to reflect recent changes in PI Group position titles.
7/25/07	2	Title Block	Removed the reference to EPOLP, removed the Enterprise logo, and changed the owner to H. Buford Barr.
7/25/07	2	2.2.2, 2.2.3, 2.3.2	Removed "Corrosion Prevention Supervisor".